Contaminant Screening Study
Libby Asbestos Site, Operable Unit 4
Libby, Montana

Final Summary Report for the Cemetery Park Ball Fields

November 2005

Summary Report

Response Action Contract
for Remedial, Enforcement Oversight, and Non-Time
Critical Removal Activities at Sites of Release or
Threatened Release of Hazardous Substances
in EPA Region 8

U.S. EPA Contract No. 68-W5-0022

Final Summary Report
For the Cemetery Park Ball Fields
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November 10, 2005

Work Assignment No.: 137-RIRI-08BC
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Work Assignment No.: 137-RIRI-08BC

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Contents

Figures

Acronyms

CDM	CDM Federal Programs Corporation
CSS	contaminant screening study
EPA	U. S. Environmental Protection Agency
LA	Libby amphibole
PLM	polarized light microscopy
QA/QC	quality assurance/quality control
RI	remedial investigation
SAP	sampling and analysis plan
Site	Cemetery Park Ball Fields
SRC	Syracuse Research Corporation
VE	visual area estimation

Section 1
Introduction

The purpose of this report is to summarize contaminant screening study (CSS)/remedial investigation (RI) field activities conducted by CDM Federal Programs Corporation (CDM) at the Cemetery Park Ball Fields (Site) in Libby, Montana on August 17 and 19, 2002. Figure 1 presents the site location.

Consistent with other areas of Libby, Montana, vermiculite from Vermiculite Mountain may have been used as base and/or fill material throughout the Cemetery Park ball fields, parking areas, walkways and wooded areas. Visual inspections were performed and soil samples were collected, to determine if vermiculite and/or Libby amphibole (LA) asbestos were present in these areas of the park.

All investigation activities were conducted in accordance with the Final Sampling and Analysis Plan (SAP), Remedial Investigation (CDM 2002a), and Final Sampling and Analysis Plan Addendum for the Cemetery Park Ball Fields (SAP Addendum) (CDM 2002b).

Section 2
Field Activities

The Site investigation consisted of a verbal interview, visual inspection for vermiculite, and soil sampling. Unless noted in Section 3.1, all field documentation and sample collection procedures provided or referenced in the SAP Addendum were followed. The following sections summarize investigation field activities.

2.1 Verbal Interview

An interview was conducted on January 14, 2002 with Mr. Cameron Foote who, at the time of the interview, leased the property. According to Mr. Foote, prior to the construction of the baseball fields, the area was undeveloped and mostly underwater (i.e., swamp). The area was backfilled in 1995 by the city of Libby. Mr. Foote suspects that fill material from the mine may have been used. It is estimated that approximately two to three feet of riprap and three to five feet of common fill were used as backfill throughout the area. Overlying this area is approximately 6 to 8 inches of topsoil that originated from the Libby Baptist Church yard. Gravel was used to finish the parking lots, but Mr. Foote did not know where this gravel came from.

Following the interview, the U.S. Environmental Protection Agency (EPA) requested that surface soil samples be collected at the ball fields in May 2002 based on the concerns of children being potentially exposed to asbestos during the upcoming baseball season. On May 6, 2002 during the Phase I investigation, soil samples were collected from the four ball fields. More information on this sampling event can be found in the SAP Addendum (CDM 2002b). The sampling team collected additional samples during the August 2002 event, to further characterize the contents of the ball fields under the CSS investigation.

2.2 Visual Inspection

As part of the August 2002 Site investigation, a visual inspection was performed during the soil sampling efforts to determine if any vermiculite was present on the site. No vermiculite was observed during the soil sampling events. Field observations are noted in the logbook pages included in Appendix A.

2.3 Soil Sampling

Soil sampling at the Site was conducted on August 17th and 19th, 2002. A sketch of the site layout prior to sample collection was drawn on the logbook pages included in Appendix A. Each sample was a five point composite consisting of a center subsample and four additional subsamples within the designated area. Sample locations were selected from the walkway, parking lots, ball field and wooded areas. Locations of samples collected are shown on Figure 2.

A total of 20 samples were collected at the Site along with two duplicates. Surface soil samples were collected from 0-4 inches and subsurface samples were collected from approximately 4-18 inches. Surface and subsurface samples were co-located but individually collected. Four surface and four subsurface samples were collected from the parking lots, two surface samples were collected from the walkways, two subsurface samples were collected from the ball fields and two surface and two subsurface samples were collected from the wooded areas. Test results for the 20 samples collected were all non-detect for LA and did not contain any visible vermiculite. Sample locations and results are presented in Figure 2.

Soil samples were collected, prepared, and analyzed in accordance with procedures presented or referenced in the SAP Addendum.

All logbook pages and field sample data sheets for this event are in Appendices A and B, respectively. Analytical results for the August 2002 Event are in Appendix C.

2.4 Soil Sample Processing and Analysis

As applicable to all soil samples collected under the Libby RI program, soil samples were processed at CDM's close-support facility in Denver in accordance with the soil preparation plan (CDM 2003). After processing, samples were sent to one of five analytical labs and analyzed for LA asbestos using two techniques: Polarized light microscopy (PLM) by visual area estimation (VE) and the PLM gravimetric method (Syracuse Research Corporation [SRC] 2003). EPA is in the process of evaluating the accuracy and reproducibility of each of these methods. However, based on EPA's performance evaluation study to date, PLM-VE results are currently being used to make project remediation decisions. For the purposes of this report, only PLM-VE results are presented.

Section 3
Quality Assurance/Quality Control

CDM has established a formal quality assurance program to ensure consistently high quality project deliverables under its Response Action Contract with EPA. For work conducted by CDM in Libby, quality assurance/quality control (QA/QC) measures include the collection of quality control samples (such as soil duplicate samples and equipment blanks), implementation of a laboratory quality assurance program, review of project reports by a CDM-approved quality assurance staff member, and an auditing component to assess the effectiveness of the quality assurance program. The following sections describe deviations from the SAP Addendum and the implications of those deviations on project or data quality objectives.

3.1 Deviations from the Sampling and Analysis Plan Addendum

All requirements in the SAP Addendum were met without exception.

3.2 Achievement of Data Quality Objectives

The data quality objectives of this investigation were met.

3.3 Data Validation and Reporting

None of the analytical data contained in this report was further validated beyond that performed by the laboratory as part of their QA/QC program. Therefore, it is assumed that the raw data are useable for their intended purpose, which is to determine the extent of LA asbestos contamination at the Site.

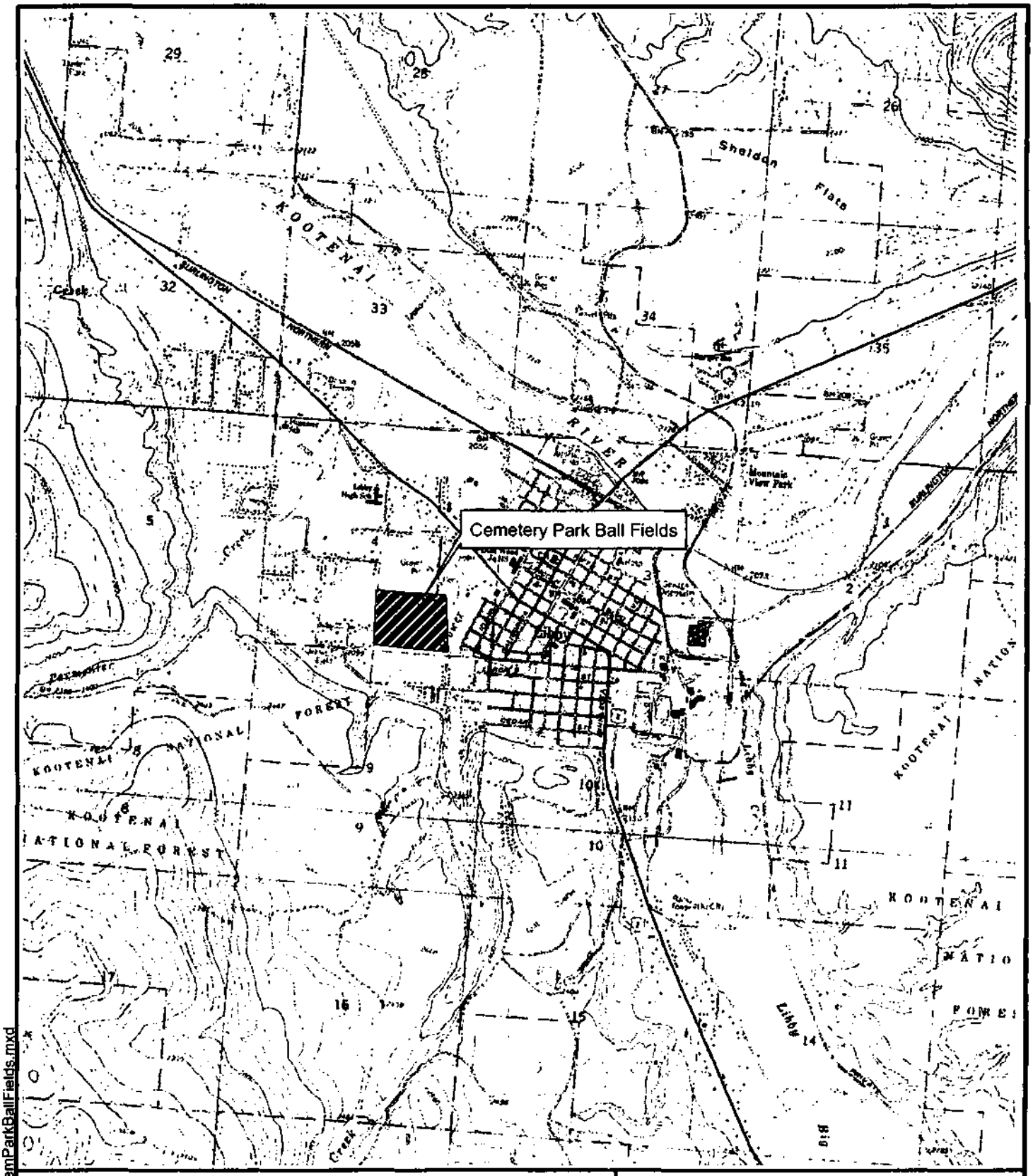
Section 4
References

CDM. 2002a. Final Sampling and Analysis Plan, Remedial Investigation, Contaminant Screening Study, Libby Asbestos Site, Operable Unit 4. April.

_____. 2002b. Final Sampling and Analysis Plan Addendum for the Cemetery Park Ball Fields. July.

_____. 2003. Close Support Facility, Soil Preparation Plan, Libby, Montana Asbestos Project, Sample Processing. April.

SRC. 2003. Analysis of Asbestos Fibers in Soil by Polarized Light Microscopy. SRC-LIBBY-03 (Rev. 0). March 3, 2003.

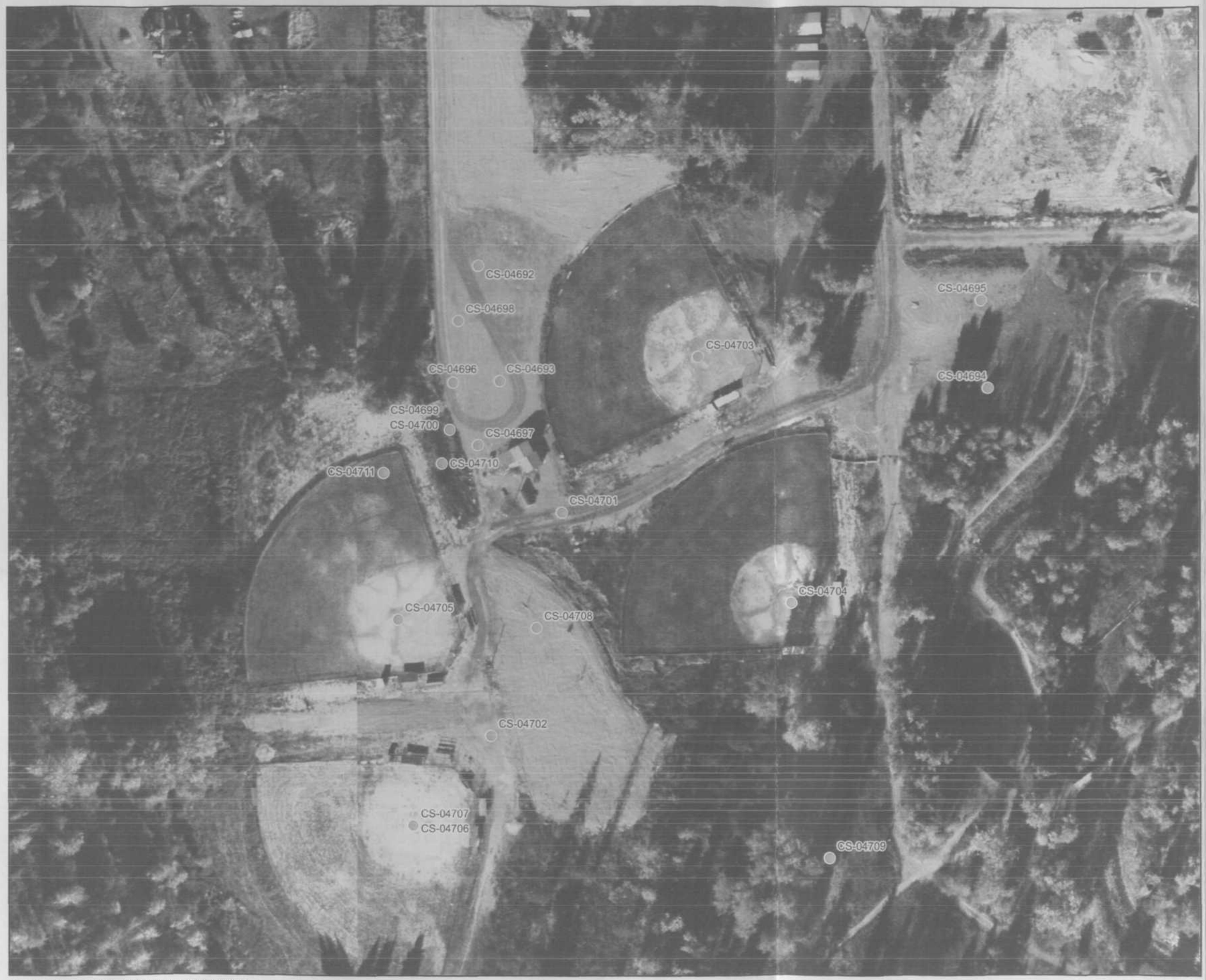


Map Filename: figure1-1CemParkBallFields.mxd

Figure 1

Site Location Map
Cemetery Park Ball Fields
Libby, Montana

CDM



Map File Name: Figure2_BallPark.mxd 04/20/05

Legend

- Sample Locations (All non-detect)

N
W E
S

Feet
0 50 100 200

1 inch equals 100 feet

Figure 2

Soil Boring Locations
Sampling Event
Cemetery Park Ball Fields
Libby, Montana

CDM

Appendix A
Logbook Pages

Location Cemetery Park BALL FIELDS Date 8/17/02

Project / Client LIBBY ASBESTOS USEPE EPA Region 8

Notebook: Robert Hunt — Ave 8/17/02

Personnel: CAM: Robert Hunt, Mark Schlabach
Rodney Peterson, + Rob Sasser. — Ave 8/17/02

PPE: Level D modified — Ave 8/17/02

Weather: sunny - clear - high in the 80's

Instruments: TRIMBLE UNIT PRO XRS

Calibration: NA

Activities: Surface + subsurface soil sampling @ the cemetery ball fields under document: CONTAMINANT SCREENING Study LIBBY Asbestos Site, operable UNIT 4, LIBBY, MONTANA - SAP - Addendum. — Ave 8/17/02

Lunch + Arrive @ Cemetery Ball FIELDS WITH DEE WARREN and Discuss: sampling procedures + objectives. Samples will collected — RH 8/17/02

Ave 8/17/02

Ave 8/17/02

Location Cemetery PARK BALL FIELD Date 8/17/02

Project / Client LIBBY - ASBESTOS - USEPE EPA Region 8

QUG - Background soil SAMPLING @ Cemetery Park the ball parking lots will be sampled first (surface + subsurface samples). Samples as previously marked (Lot 1) Sample areas are sprayed with water before to sampling. Ave 8/17/02

Parking Lot 1 (North) — CS- 04692 — SP- 115078
Field Data Sheet 001996 + COC 003295

Parking Lot 1 (South) — CS- 04693 — SP- 115223
Field Data Sheet 001994 + COC 003295

Parking Lot 2 (East) — CS- 04694 — SP- 115224
Field Data Sheet 001995

Parking Lot 2 (West) — CS- 04695 — SP- 115225
Field Data Sheet 001997 + COC 003295

Parking Lot 2 (North) — CS- 04696 — SP-115078
Field Data Sheet 001997 + COC 003295

Parking Lot 1 (South) — CS- 04697 — SP- 115223
Field Data Sheet 001997 + COC 003295

Ave 8/17/02

Location Cemetery Park BALL Fields Date 8/17/02

Project / Client LIBBY ASBESTOS UNDE - EPA Region 8

Parking Lot 2
1515 EAST — CS- 04698 — SP- 115224
Field Data Sheet 001998 + COC 003295 (4-16")

Parking Lot 2
1535 WEST — CS- 04699 — SP- 115225
Field Data Sheet 001998 + COC 003295 (4-16")

Parking Lot 2 (Dup)
1535 WEST — CS- 04700 — SP- 115225
Field Data Sheet 001998 + COC 003295 (4-16")

Walkway #1
1610 0-4" — CS- 04701 — SP- 115226
Field Data Sheet 001999 + COC 003295

Walkway #2
1620 0-4" — CS- 04702 — SP- 115227
Field Data Sheet 001999 + COC 003309

Yard (BALLFIELD #1)
1705 4-16" — CS- 04703 — SP- 115228
Field Data Sheet 001999 + COC 003309

Yard (BALLFIELD #2)
1750 4-16" — CS- 04704 — SP- 115229
Field Data Sheet 002000 + COC 003309

1810 - FINISHED SAMPLING FOR THE DAY - WILL CONTINUE MONDAY - HEAD BACK TO COM OFFICE FOR PAPERWORK AND CHECK

8/17/02

Location Cemetery Park PHOTO LOG Date 8/17/02

Project / Client LIBBY ASBESTOS - UNDE EPA Region 8

Photo	Description / Address
(1)	PICTURE OF PARKING LOT SAMPLE LOCATION (0-16" XP. LOT #2
(2)	PICTURE OF PARKING LOT SAMPLE LOCATION (0-16" XP. LOT #1
(3)	BLACK PICTURE - DID NOT SHOW UP

8/17/02

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Location ~~LIBBY~~ Cemetery Ball Fields Date 8/14/02

Project / Client LIBBY ASBESTOS - USEPA Region 8

0930 - Arrive @ Cemetery Ball Fields - Continue sampling (surface & subsurface) in Fields, parking lots, walkways and wooded areas. PPE for sampling is Level D modified. Sample areas are sprayed with water during sampling.

BALLFIELD #3

1000 **CS- 04705** **SP- 115230**

Field Data sheet 002001 - COC - 003317 (4-18")

BALLFIELD #4

1100 **CS- 04706** **SP- 115231**

Field Data sheet - 002001 - COC - 003317 (4-18")

BALLFIELD #4

100 DUPLICATE **CS- 04707** **SP- 115231**

Field Data sheet - 002001 - COC - 003317 (4-18")

WOODED AREA

1345 0-4" **CS- 04708** **SP- 115232**

Field Data sheet - 002002 - COC 003317 (0-4")

WOODED AREA

1415 4-18" **CS- 04710** **SP- 115232**

Field Data sheet 002002 - COC - 003317

WOODED AREA 2

1500 0-4" **CS- 04709** **SP- 115233**

Field Data sheet 002002 - COC - 003317

8/14/02

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Location CEMETERY BALL FIELDS Date 8/19/02

Project / Client LIBBY ASBESTOS - USEPA Region 8

WOODED AREA 2

1545 0-18" **CS- 04711** **SP- 115233**

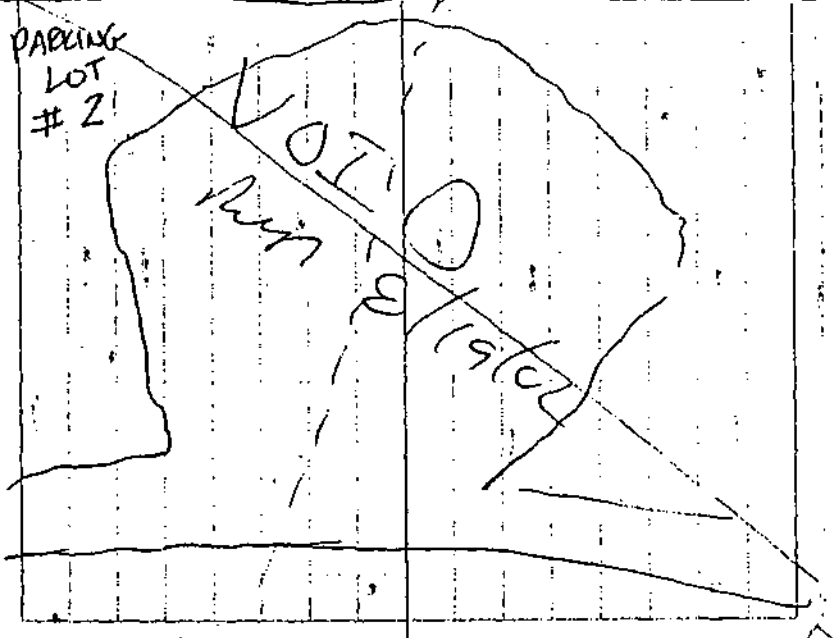
Field Data sheet 002003 - COC 003317

- NO VERMICULITE WAS NOTICED WHILE SAMPLING THE CEMETERY PARK BALL FIELDS ~~NOT~~ 8/19/02

GPS FILE T3 A-08192

THIS GPS FILE INCLUDES ALL SAMPLE LOCATIONS @ THE CEMETERY PARK BALL FIELDS. ~~NOT~~ 8/19/02

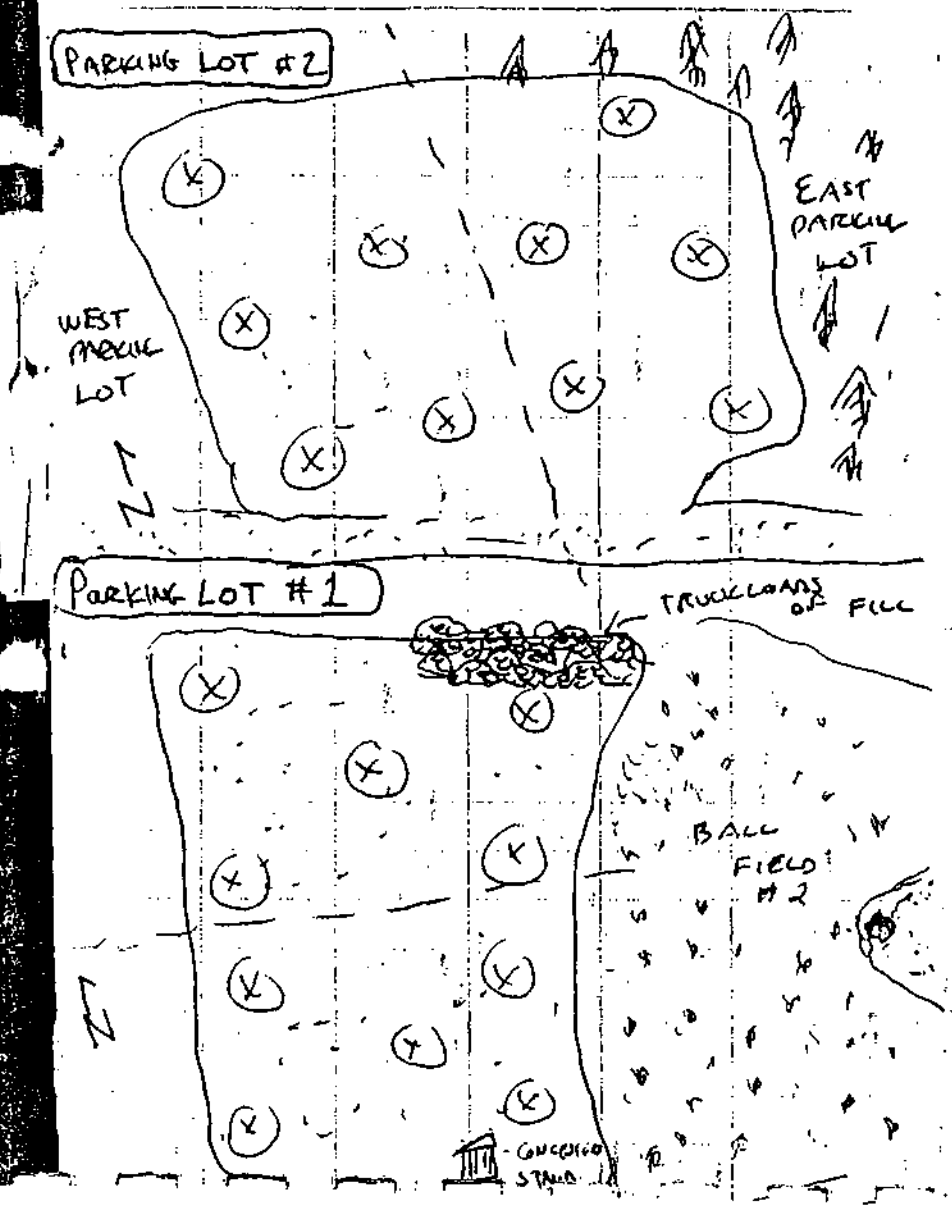
SAMPLE LOCATION SKETCHES



138

Location CEMETERY PARK BALL FIELDS Date 8/19/02

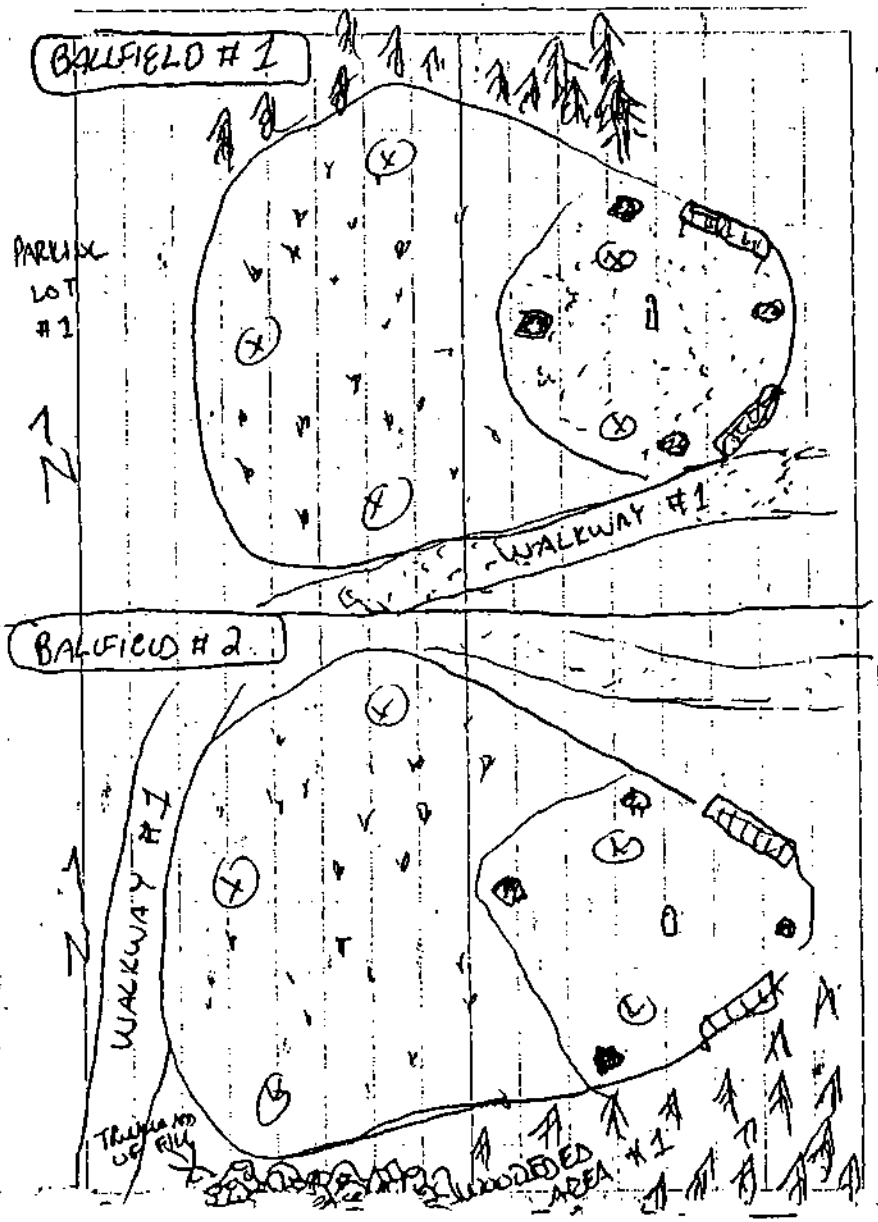
Project / Client LIBBY ASBESTOS- VOLPE EPA Region 8



139

Location CEMETERY PARK BALL FIELDS Date 8/19/02

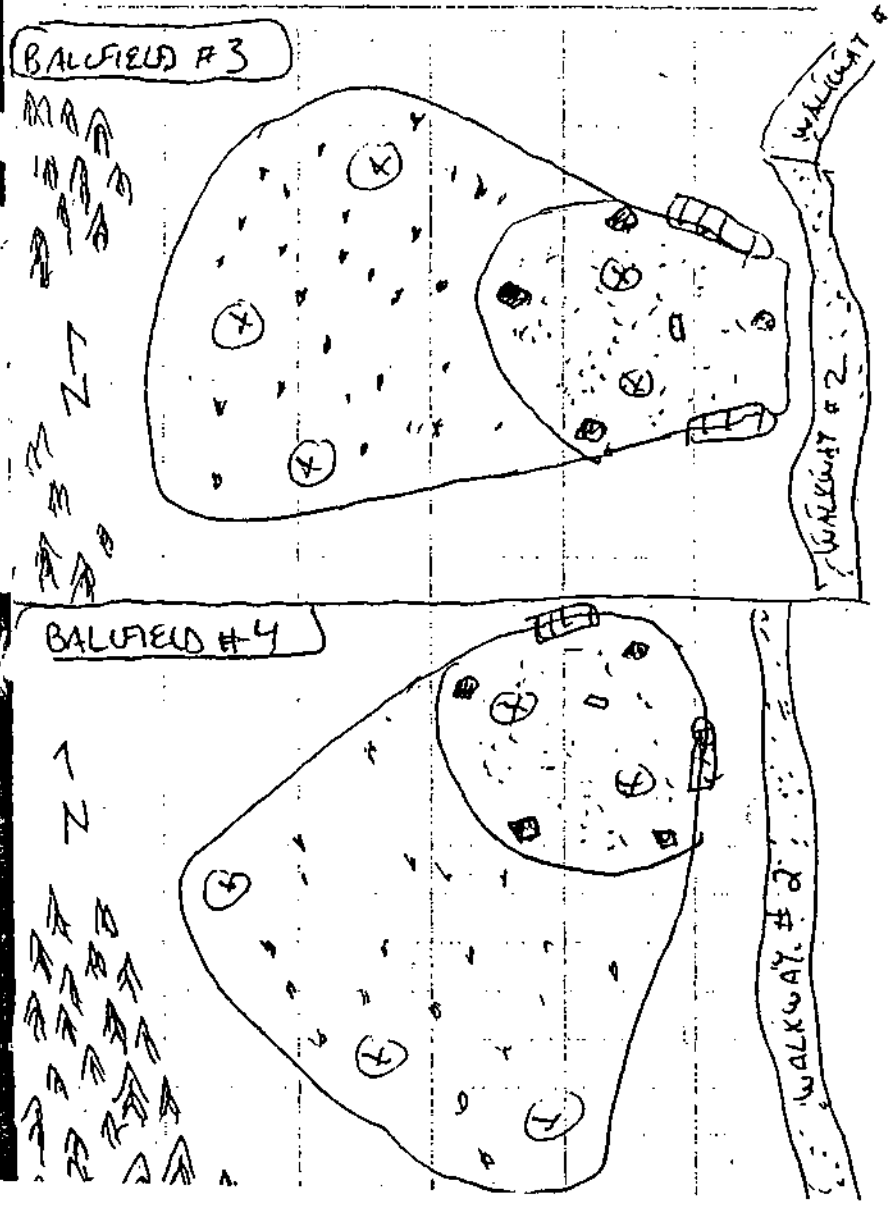
Project / Client LIBBY ASBESTOS- VOLPE- EPA Region 8



140

Location CEMETERY PARK BALL FIELDS Date 8/16/02

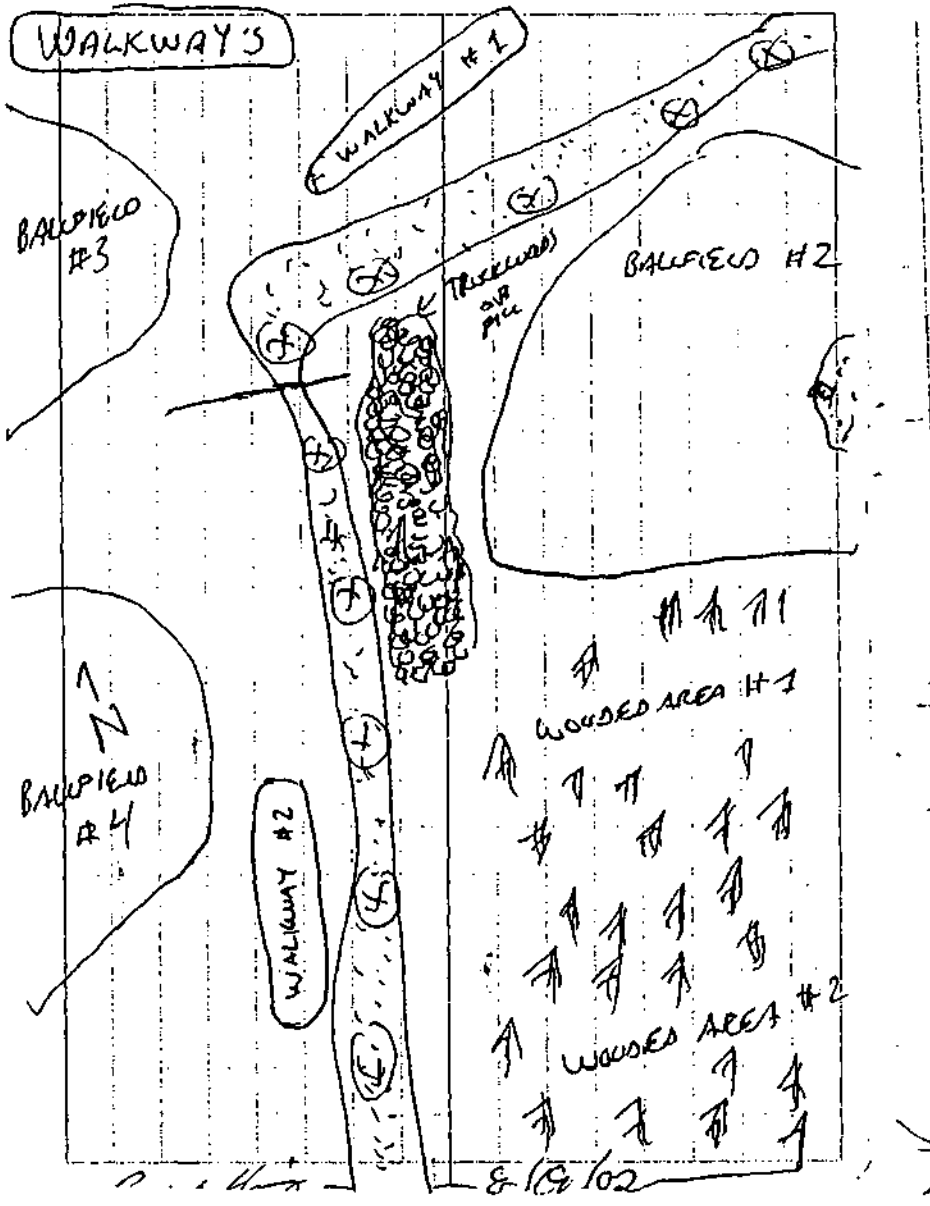
Project / Client LIBBY ASBESTOS - VOLPE - EPA REGION 8



141

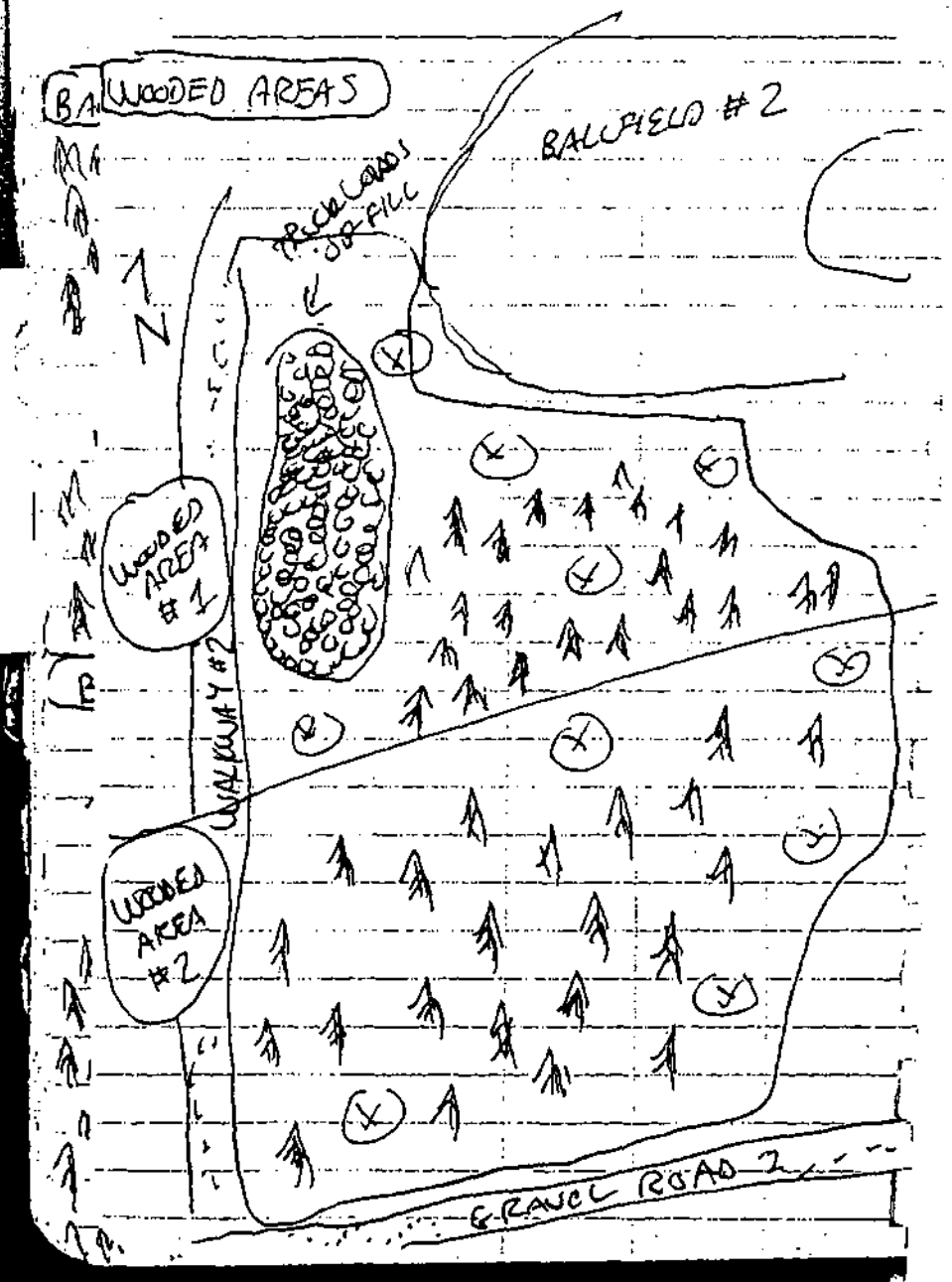
Location CEMETERY PARK BALL FIELDS Date 8/14/02

Project / Client LIBBY ASBESTOS - VOLPE EPA REGION 8



140 142 Location CEMETERY PARK BALL FIELD Date 8/6/02

Project / Client LIBBY ASBESTOS VOLPE EPA Region 8



Appendix B
Field Sample Data Sheets

Sher lo.: CSS (S) - 001396

CONTAMINANT SCREENING STUDY

FIELD SAMPLE DATA SHEET FOR SOIL 955 Crotteau

Scenario No.: N/A Field Logbook No: 100 80 Page No: 126 - 131 @ 8/14/02 Sampling Date: 17 Aug 02

Address: CEMETERY PARK BALL FIELDS Owner: CITY OF COBB

Business Name: N/A

Land Use: (circle) Residential School Commercial Mining Roadway (Other (PARK)

Sampling Team: (circle) (CDM) PES Other _____ Names: SCHNEIDER, HUNT, STANLEY, ANDERSON

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CS- 04692 MS 08.12.02	CS- 04693 MS 08.12.02	CS- 04694 MS 08.12.02
Location ID	SP- 115078 MS 08.12.02	SP- 115223 MS 08.12.02	SP- 115224 MS 08.12.02
Sample Group	~~MS 08.07.02 NORTH~~ PARKING LOT 1 @ 8/14/02	PARKING LOT ~~LOT~~ 2 MS 08.12.02	PARKING LOT 2 @ 8/14/02
Location Description (circle)	Back yard Front yard ~~Side yard~~ Other NORTH PORTION	Back yard Front yard ~~Side yard~~ Other SOUTH PORTION	Back yard Front yard ~~Side yard~~ Other EAST PORTION
Category (circle)	(FS) FD of _____ Field Blank (lot or equipment)	(FS) FD of _____ Field Blank (lot or equipment)	(FS) FD of _____ Field Blank (lot or equipment)
Matrix Type (Surface soil unless other wise noted)	(Surface Soil) Other _____	(Surface Soil) Other _____	(Surface Soil) Other _____
Type (circle)	Grab (Comp. # subsamples 5)	Grab (Comp. # subsamples 5)	Grab (Comp. # subsamples 5)
Sample Time	1110	1120	1115
Top Depth (in.)	0	0	0
Bottom Depth (in.)	4	4	4
Grid, Quadrant, Section			
Field Comments	BD-_____ PARKING LOT #1	PARKING LOT #1	PARKING LOT #2
	Entered ___ Validated ___	Entered ___ Validated ___	Entered ___ Validated ___

Field Team	Initial
Completed by	MS
QC by	RP

DW 8/19/02

vs 062602

Sheet No.: CSS (S) - 001097

CONTAMINANT SCREENING STUDY

FIELD SAMPLE DATA SHEET FOR SOIL

855 Crotteau

Scenario No.: N/A Field Logbook No: 100080 Page No: 130-131 @8/19/02 Sampling Date: 17 AUG 02

Address: CEMETERY PARK BALL FIELDS Owner: CITY OF LORAIN

Business Name: N/A

Land Use: (circle) Residential School Commercial Mining Roadway Other (PARK)

Sampling Team: (circle) CDM PES Other _____ Names: SCHLEGEL, HUNT, SADLER, PIERSON

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CS- 04695	CS- 04696	CS- 04697
Location ID	SP- 115225	SP- 115078	SP- 115223
Sample Group	PARKING LOT #2 8/19/02	PARKING LOT #1 8/19/02	PARKING LOT #1 8/19/02
Location Description (circle)	Back yard Front yard Side yard Other WEST PORTION	Back yard Front yard Side yard Other NORTH PORTION	Back yard Front yard Side yard Other SOUTH PORTION
Category (circle)	FS FD of _____ Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)
Matrix Type (Surface soil unless other wise noted)	Surface Soil Other _____	Surface Soil Other SUBSURFACE	Surface Soil Other SUBSURFACE
Type (circle)	Grab Comp. # subsamples 5	Grab Comp. # subsamples 5	Grab Comp. # subsamples 5
Sample Time	1125	1200	1245
Top Depth (in.)	0	0 4 @8.19.02	4
Bottom Depth (in.)	4	15	16
Grid, Quadrant, Section			
Field Comments	BD- N/A PARKING LOT #2	PARKING LOT #1	PARKING LOT #1
	Entered ___ Validated ___	Entered ___ Validated ___	Entered ___ Validated ___

Field Team	Initial
Completed by	
QC by	

vs 062602

8/19/02

Sheet No.: CSS (S) - 001093

CONTAMINANT SCREENING STUDY

FIELD SAMPLE DATA SHEET FOR SOIL

955 Crotteau

Scenario No.: N/A Field Logbook No: 100080 Page No: 125-132 (@ 8/14/02) Sampling Date: 17 AUG 02

Address: CENTENNIAL PARK BALL FIELDS Owner: CITY OF LOGAN

Business Name: N/A

Land Use: (circle) Residential School Commercial Mining Roadway (Other PARK)

Sampling Team: (circle) (CDM) PES Other _____ Names: SCHLEBUSCH, HUNT, STANLEY PETERSON

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CS- 04698 (US 08.17.02)	CS- 04699 (US 08.17.02)	CS- 04700 (US 08.17.02)
Location ID	SP- 115224 (US 08.17.02)	SP- 115225 (US 08.17.02)	SP- 115225 (US 08.17.02)
Sample Group	PARKING LOT #2 @ 8/14/02	PARKING LOT #2 @ 8/14/02	PARKING LOT #2 @ 8/14/02
Location Description (circle)	Back yard Front yard Side yard (Other EAST PORTION)	Back yard Front yard Side yard (Other WEST PORTION)	Back yard Front yard Side yard (Other WEST PORTION)
Category (circle)	(FS) FD of _____ Field Blank (lot or equipment)	(FS) FD of _____ Field Blank (lot or equipment)	FS (FD of CS-04699) Field Blank (lot or equipment)
Matrix Type (Surface soil unless other wise noted)	Surface Soil (Other SUBSURFACE)	Surface Soil (Other SUBSURFACE)	Surface Soil (Other SUBSURFACE)
Type (circle)	Grab (Comp. # subsamples 5)	Grab (Comp. # subsamples 5)	Grab (Comp. # subsamples 5)
Sample Time	1515	1525	US 08.17.02 ~~1555~~ 1535
Top Depth (in.)	4	4	4
Bottom Depth (in.)	16	16	16
Grid, Quadrant, Section			
Field Comments	BD- N/A PARKING LOT #2	PARKING LOT #2	PARKING LOT #2
	Entered ___ Validated ___	Entered ___ Validated ___	Entered ___ Validated ___

Field Team	Initial
Completed by	MK
QC by	RD

vs 062602

DW 8/19/02

Site No.: CSS (S) - 001099

CONTAMINANT SCREENING STUDY

FIELD SAMPLE DATA SHEET FOR SOIL 855 Crotteau

Scenario No.: N/A Field Logbook No: 100080 Page No: @BAW 130-132 Sampling Date: 17 MAY 01

Address: CEMETERY PARK BALL FIELDS Owner: CITY OF COEUR

Business Name: N/A

Land Use: (circle) Residential School Commercial Mining Roadway Other (PARK)

Sampling Team: (circle) (CDM) PES Other _____ Names: SCHLEBUSCH, HUNT, STOWAY, PETERSON

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CS- 04701	CS- 04702	CS- 04703
Location ID	SP- 115226	SP- 115227	SP- 115228
Sample Group	WATERWAY	WATERWAY	YARD
Location Description (circle)	Back yard Front yard Side yard Other WATERWAY #1	Back yard Front yard Side yard Other WATERWAY #2	Back yard Front yard Side yard Other BALL FIELD
Category (circle)	(FS) FD of _____ Field Blank (lot or equipment)	(FS) FD of _____ Field Blank (lot or equipment)	(FS) FD of _____ Field Blank (lot or equipment)
Matrix Type (Surface soil unless other wise noted)	(Surface Soil) Other _____	(Surface Soil) Other _____	Surface Soil Other SUBSURFACE
Type (circle)	Grab Comp. # subsamples 5	Grab Comp. # subsamples 5	Grab Comp. # subsamples 5
Sample Time	1610	1620	1705
Top Depth (in.)	0	0	4
Bottom Depth (in.)	4	4	16
Grid, Quadrant, Section			
Field Comments	BD- N/A WATERWAY #1	WATERWAY #2	BALL FIELD #1
	Entered ___ Validated ___	Entered ___ Validated ___	Entered ___ Validated ___

Field Team	Initial
Completed by	DS
QC by	RP

vs 062602

DW 8/19/

Site No.: CSS (S) - 002000

CONTAMINANT SCREENING STUDY

FIELD SAMPLE DATA SHEET FOR SOIL 855 Crotteau

Scenario No.: N/A Field Logbook No: 100080 Page No: 30 Sampling Date: 17 Aug 02

Address: CEMETERY PARK BALL FIELDS Owner: CITY OF LOGAN

Business Name: N/A

Land Use: (circle) Residential School Commercial Mining Roadway Other (PARK)

Sampling Team: (circle) CDM PES Other _____ Names: SCHLERUSCH, HUNT, PETERSON, SATRAN

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CS- 04704		
Location ID	SP- 115229		
Sample Group	YAC9		
Location Description (circle)	Back yard Front yard Side yard Other BALLFIELD	Back yard Front yard Side yard Other	Back yard Front yard Side yard Other
Category (circle)	FS FD of _____ Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)
Matrix Type (Surface soil unless other wise noted)	Surface Soil Other SUBSURFACE	Surface Soil Other	Surface Soil Other
Type (circle)	Grab Comp. # subsamples 5	Grab Comp. # subsamples	Grab Comp. # subsamples
Sample Time	1750		
Top Depth (in.)	MOBILE 4		
Bottom Depth (in.)	16		
Grid, Quadrant, Section			
Field Comments	BD- N/A BALLFIELD #2		
	Entered ___ Validated ___	Entered ___ Validated ___	Entered ___ Validated ___

Field Team	Initial
Completed by	MS
QC by	JP

vs 062602

DW 8/19/02

Sheet No.: CSS (S) - 02001

CONTAMINANT SCREENING STUDY

FIELD SAMPLE DATA SHEET FOR SOIL 855 Crotteau

Scenario No.: NA Field Logbook No: 100680 Page No: 136 Sampling Date: 8/19/02

Address: Cemetery Park Ball Fields Owner: City of Libby

Business Name: ~~Residential~~ per client

Land Use: (circle) ~~Residential~~ School Commercial Mining Roadway Other (PARK)

Sampling Team: (circle) (CDM) PES Other _____ Names: Robert Hunt Rodney Peterson Rob Gallacy Kristin Sloane

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CS- 04705	CS- 04706	CS- 04707
Location ID	SP- 115230	SP- 115231	SP- 115231
Sample Group	Yard Lower Field	Yard Middle Field	Yard Upper Field
Location Description (circle)	Back yard Front yard Side yard Other BALL FIELD 3	Back yard Front yard Side yard Other BALL FIELD 4	Back yard Front yard Side yard Other BALL Field 4
Category (circle)	(FS) FD of _____ Field Blank (lot or equipment)	(FS) FD of _____ Field Blank (lot or equipment)	FS (FD) of CS-04706 Field Blank (lot or equipment)
Matrix Type (Surface soil unless other wise noted)	~~Surface Soil~~ Other Subsurface	Surface Soil Other Subsurface	Surface Soil Other Subsurface
Type (circle)	Grab Comp. # subsamples 5	Grab Comp. # subsamples 5	Grab Comp. # subsamples 5
Sample Time	1000	1100	1100
Top Depth (in.)	4	4	4
Bottom Depth (in.)	18	18	18
Grid, Quadrant, Section			
Field Comments	BD _____ Rob G 8/19/02	8/19/02	
	Entered ___ Validated ___	Entered ___ Validated ___	Entered ___ Validated ___

Field Team	Initial
Completed by	RH
QC by	RS

DW 8/20/02

vs 062602

Sheet No.: CSS (S) - 002002

CONTAMINANT SCREENING STUDY

FIELD SAMPLE DATA SHEET FOR SOIL

855 Croteau

Scenario No.: NA Field Logbook No: 100080 Page No: 67 Sampling Date: 8/19/02

Address: Cemetery Park ~~Field~~ BALL Fields Owner: City of LIBBY

Business Name:

Land Use: (circle) ~~Residential~~ School Commercial Mining Roadway Other (PARK)

Sampling Team: (circle) CDM PES Other ______ Names: Robert Hunt, Rodney Peterson, Rob Sanders, Kristin Sloane

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CS- 04708	CS- 04709	CS- 04710
Location ID	SP- 115232	SP- 115233	SP- 115232
Sample Group	Field	Field	Field
Location Description (circle)	Back yard Front yard Side yard Other Wooded Area #1	Back yard Front yard Side yard Other Wooded Area 2	Back yard Front yard Side yard Other Wooded Area 1
Category (circle)	FS FD of ______ Field Blank (lot or equipment)	FS FD of ______ Field Blank (lot or equipment)	FS FD of ______ Field Blank (lot or equipment)
Matrix Type (Surface soil unless other wise noted)	Surface Soil Other ______	Surface Soil Other ______	Surface Soil Other SUBSURFACE
Type (circle)	Grab Comp. # subsamples 5	Grab Comp. # subsamples 5	Grab Comp. # subsamples 5
Sample Time	1345	1500	1415
Top Depth (in.)	0	0	4
Bottom Depth (in.)	4	4	~~16~~ 18
Grid, Quadrant, Section			
Field Comments	BD 8/19/02	8/19/02	
	Entered ___ Validated ___	Entered ___ Validated ___	Entered ___ Validated ___

Field Team	Initial
Completed by	RH
QC by	RS

DW 8/20/02

vs 062602

Sheet No.: CSS (S) - 002003

CONTAMINANT SCREENING STUDY

FIELD SAMPLE DATA SHEET FOR SOIL 855 Crotteau

Scenario No.: NA Field Logbook No: 18080 Page No: 137 Sampling Date: 8/19/02

Address: Cemetery Park Ball Fields Owner: City of Cliff

Business Name: _____

Land Use: (circle) Residential School Commercial Mining Roadway Other (PARK)

Sampling Team: (circle) CDM PES Other _____ Names: Robert Hunt Kristi Stave Rocky Peterson Rob Salcedo

Data Item	Sample 1	Sample 2	Sample 3
Index ID	CS- 04711		
Location ID	SP- 115233		
Sample Group	Field		
Location Description (circle)	Back yard Front yard Side yard Other Weeded Area 2	Back yard Front yard Side yard Other _____	Back yard Front yard Side yard Other _____
Category (circle)	FS FD of _____ Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)	FS FD of _____ Field Blank (lot or equipment)
Matrix Type (Surface soil unless other wise noted)	Surface Soil Other Subsurface	Surface Soil Other _____	Surface Soil Other _____
Type (circle)	Grab Comp. # subsamples 5	Grab Comp. # subsamples ____	Grab Comp. # subsamples ____
Sample Time	1345		8
Top Depth (in.)	4		3
Bottom Depth (in.)	18"		10
Grid, Quadrant, Section			
Field Comments	BD- _____ 8/19/02		
	Entered ___ Validated ___	Entered ___ Validated ___	Entered ___ Validated ___

Field Team	Initial
Completed by	RH
QC by	RS

vs 062602

DW 8/20/02

Appendix C
Analytical Results for Soil Samples Collected, August 2002

CDM

FILE NAME: EMSL04_040401855_PLM_VE.xls

PLM VISUAL ESTIMATION DATA RECORDING SHEET

Laboratory Name: EMSL04
Job Number: 040401855
Date Received: 2/6/2004
SOP Name/Revision: SRC-Libby-03 SOP rev0 v8
Spreadsheet version: 1f

Data Entry by: K. Carr
Checked by: L. Moore

EPA Index ID	Index Suffix ID	QA Type (see list)	Lab Sample ID	Date Analyzed	Analyst Name	Sample Appearance	Ref Material (B or T)	Libby Amphibole (LA)			Other Amphibole (OA)			Chrysotile (Ch)			Comments
								Qual	LA-MF (%)	Bin	Qual	OA-AF (%)	OA Type (see list)	Qual	Ch-AF (%)	Deviation?	
CS-04692	FG	Not QA	0001	2/7/2004	L. Price	Brown,Non-Fibrous,Homogeneous	ISTM	ND		A	ND			ND			
CS-04692	FG	LD	0001	2/7/2004	K. Reeves		ISTM	ND		A	ND			ND			
CS-04693	FG	Not QA	0002	2/7/2004	L. Price	Brown,Non-Fibrous,Homogeneous	ISTM	ND		A	ND			ND			
CS-04694	FG	Not QA	0003	2/7/2004	L. Price	Brown,Non-Fibrous,Homogeneous	ISTM	ND		A	ND			ND			
CS-04695	FG	Not QA	0004	2/7/2004	L. Price	Brown,Non-Fibrous,Homogeneous	ISTM	ND		A	ND			ND			
CS-04696	FG	Not QA	0005	2/7/2004	L. Price	Brown,Non-Fibrous,Homogeneous	ISTM	ND		A	ND			ND			
CS-04697	FG	Not QA	0006	2/7/2004	L. Price	Brown,Non-Fibrous,Homogeneous	ISTM	ND		A	ND			ND			
CS-04698	FG	Not QA	0007	2/7/2004	L. Price	Brown,Non-Fibrous,Homogeneous	ISTM	ND		A	ND			ND			
CS-04699	FG	Not QA	0008	2/7/2004	L. Price	Brown,Non-Fibrous,Homogeneous	ISTM	ND		A	ND			ND			
CS-04700	FG	Not QA	0009	2/7/2004	L. Price	Brown,Non-Fibrous,Homogeneous	ISTM	ND		A	ND			ND			
CS-04701	FG	Not QA	0010	2/7/2004	L. Price	Brown,Non-Fibrous,Homogeneous	ISTM	ND		A	ND			ND			
CS-04702	FG	Not QA	0011	2/7/2004	L. Price	Brown,Non-Fibrous,Homogeneous	ISTM	ND		A	ND			ND			
CS-04702	FG	LD	0011	2/7/2004	K. Reeves		ISTM	ND		A	ND			ND			
CS-04703	FG	Not QA	0012	2/7/2004	L. Price	Brown,Non-Fibrous,Homogeneous	ISTM	ND		A	ND			ND			
CS-04704	FG	Not QA	0013	2/7/2004	L. Price	Brown,Non-Fibrous,Homogeneous	ISTM	ND		A	ND			ND			
CS-04705	FG	Not QA	0014	2/7/2004	L. Price	Brown,Non-Fibrous,Homogeneous	ISTM	ND		A	ND			ND			
CS-04706	FG	Not QA	0015	2/7/2004	L. Price	Brown,Non-Fibrous,Homogeneous	ISTM	ND		A	ND			ND			
CS-04707	FG	Not QA	0016	2/7/2004	L. Price	Brown,Non-Fibrous,Homogeneous	ISTM	ND		A	ND			ND			
CS-04708	FG	Not QA	0017	2/7/2004	L. Price	Brown,Non-Fibrous,Homogeneous	ISTM	ND		A	ND			ND			
CS-04709	FG	Not QA	0018	2/7/2004	L. Price	Brown,Non-Fibrous,Homogeneous	ISTM	ND		A	ND			ND			
CS-04710	FG	Not QA	0019	2/7/2004	L. Price	Brown,Non-Fibrous,Homogeneous	ISTM	ND		A	ND			ND			
CS-04711	FG	Not QA	0020	2/7/2004	L. Price	Brown,Non-Fibrous,Homogeneous	ISTM	ND		A	ND			ND			